

Date: Mon, 19 Jul 93 13:59:31 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #875
To: Info-Hams

Info-Hams Digest Mon, 19 Jul 93 Volume 93 : Issue 875

Today's Topics:

(none)
CW continued [long]
How does an American sign in Canada? (2 msgs)
IC-730 rf problem
impatient newbie ham (2 msgs)
Intermodulation
Opinions of Heathkit gear
Professional quality earphones - source?
skeds for Persieds meteor shower
Standard C468 - Tricks ?
Teletype question
TNC<->Alinco DJ-580 connection
TS-50, type-acceptance
TS50 Illegal!

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 19 Jul 93 16:36:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: (none)
To: info-hams@ucsd.edu

Subject: homebrew
Status: ON 32768
Mailed To: info-hams@ucsd.edu

Looking for information on FTP sites, or news groups for Ham "homebrew" projects.

We have information on vendors of QRP's and kits, but are also looking for the bigger (more serious - 'more power') projects.

You can either post the info or email me direct:
ryme@husky.bloomu.edu

Thanks,
John Rymell
N3PFF

John Rymell		
Computer Services	Email:	ryme@husky.bloomu.edu
Bloomsburg University	Amateur Radio:	N3PFF
Bloomsburg, PA 17815		

Date: 19 Jul 93 11:12:14 est
From: psinnntp!arrl.org@uunet.uu.net
Subject: CW continued [long]
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, clifto@indep1.UUCP (Cliff Sharp) writes:

[deletions]

> I think you've got it there. Speed is proportional to the time spent
>trying to get your speed up.

Well, maybe. It's too bad from a pure knowledge point of view that CW is no longer the important factor in radio commerce as it once was -- from the standpoint that just as we're coming out of the Dark Ages about how people actually do (or do not) *read*, we also could be getting close to moving from BC to AD on how people actually do (or do not) learn to copy Morse at whatever speed.

People are now knowing that relative inability to read is not *necessarily* lack of initiative or practice; reading is a very complex feat for an organism to perform. *Many* factors come into play in the action of reading -- "attention span," psychomotor,

psychooptic and many other issues -- and this means that many factors can get in the way of/contribute to reading maximally.

Characterizations of Morse code as a *language* notwithstanding -- it isn't; at its base, it's mainly an aural means of representing an extant *alphabet* (yes, I know about Q signals, and the fact that some operators hear entire words/phrases as "single sounds") -- whatever Morse code "machine" we construct in our heads can more or less be considered as a "converter" or "front end" for *extant reading skills.* This "conversion" is really tricky -- it involves psychomotor and psychoacoustic issues *entirely absent in reading the printed word.* We can therefore expect that reading research will not translate directly to understanding how people learn to understand Morse.

Even if you're capable of "converting" the sounds properly into letters and/or words, what then? If you can't read -- that is, if you can't get meaning out of particularly arranged words which are themselves made of particular arrangements of letters -- you will probably be a failure at Morse. (At this point it's useful to add that people are likely to differ in whether they can copy "in their heads" or write and read it. And writing it down versus head-copying is yet another forking path, as is typing versus handwriting. Generalizations fail because every person pushing his or her limits is a special case.)

Cutting to the chase, I'm (at least intellectually) saddened by procrustean approaches to Morse code learning and speed improvement, just as I'm (actually) saddened by such approaches to the teaching of reading or analyses of the relative inability to read. Whenever you come across "*Everybody* can do it if they just concentrate/try/pay attention/whatever" statements, you are perceiving an approach from the Dark Ages of education. Everybody *can't* read at exactly the same level, much less get to whatever level they get to in exactly the same way. Everybody *can't* learn to recognize, understand and send the Morse code at the same speed, much less get to whatever level they get to in exactly the same way.

Whatever the activity, reportage about it tends to emanate from its converts, enthusiasts, and adepts -- especially true of avocations. We tend *not* to hear from an activity's more prosaic practitioners or those who have fallen by the way. Yet, enthusiasts and adepts operating outside of the scientific method may not be very good at prescribing sound means for nonenthusiasts and nonadepts to *become* enthusiasts and adepts. (In many cases, they got where *they* are *without* programs like the ones they devise!) This, I'm afraid, may operate in

avocational Morse code instruction.

Regards/WJ1Z

David Newkirk, Senior Asst Tech Editor | voice: 203-666-1541 X280
American Radio Relay League | fax: 203-665-7531
225 Main St, Newington CT 06111 USA | net: dnewkirk@arrl.org

Date: 19 Jul 93 07:38:23 GMT
From: ogicse!uwm.edu!cs.utexas.edu!not-for-mail@network.ucsd.edu
Subject: How does an American sign in Canada?
To: info-hams@ucsd.edu

Let me repeat myself ... :-)

> to which Peter Laws replied:

>

> I'm fairly certain that US law is completely irrelevant
> when operating in Canada. And vice versa.

To which I'll add "or other countries".

> An amateur operating under a US license is expected by the FCC to abide
> by US amateur regulations, no matter where in the world he/she happens
> to be located at the time.

Sorry. I don't buy this. When you operate in another country you must
obey **their** law, of course, but not ours.

Carried out to it's illogical extreme: If I drive on the Autobahn in
Germany, I must not exceed 65 mi/h because that is the maximum in Arkansas
and that is where I am licensed ... :-)

>

> Likewise, an amateur from another country, operating in the US, is
> expected by the FCC to abide by US amateur regulations, even though
> his/her license may have been issued by another country.

No argument here ...

73,
Peter Laws
N5UWY/AA, V31WY, VE2???

Peter Laws | "The '90s are gonna make the '60s|plaws@uafhp.uark.edu
n5uwy@ka5bml.ar.usa.noam| look like the '50s" --D. Hopper|plaws@uafsysb.bitnet

Date: Mon, 19 Jul 1993 18:14:48 GMT
From: haven.umd.edu!darwin.sura.net!howland.reston.ans.net!ux1.cso.uiuc.edu!
newsrelay.iastate.edu!news.iastate.edu!wjturner@ames.arpa
Subject: How does an American sign in Canada?
To: info-hams@ucsd.edu

In article <Pine.3.07.9307191230.A3287-b1000000@uafhp.uark.edu> Peter Laws
<plaws@uafhp.uark.edu> writes:
>Let me repeat myself ... :-)
No need to, we heard you the first time. :-)

>> An amateur operating under a US license is expected by the FCC to abide
>> by US amateur regulations, no matter where in the world he/she happens
>> to be located at the time.

>
>Sorry. I don't buy this. When you operate in another country you must
>obey *their* law, of course, but not ours.
>
>Carried out to it's illogical extreme: If I drive on the Autobahn in
>Germany, I must not exceed 65 mi/h because that is the maximum in Arkansas
>and that is where I am licensed ... :-)

I'm sorry you don't buy this, because the FCC does. I happened to be browsing
through the FCC Rule book and part 97--OK, I'm wierd---when I came across this
particular section. *It is true!!!* If you were to operate in Canada with a
US amateur radio license, you must observe US rules as well as Canadian. If
you check in Part 97 itself it even tells you what frequencies you may operate
in the different ITU regions for the different US operator classes. Check it
out. It is all part of reciprocal licensing.

--
Will Turner, NORDV -----
wjturner@iastate.edu | "Are you going to have any professionalism, |
twp77@isuvax.iastate.edu | or am I going to have to beat it into you?" |
TURNERW@vaxld.ameslab.gov -----

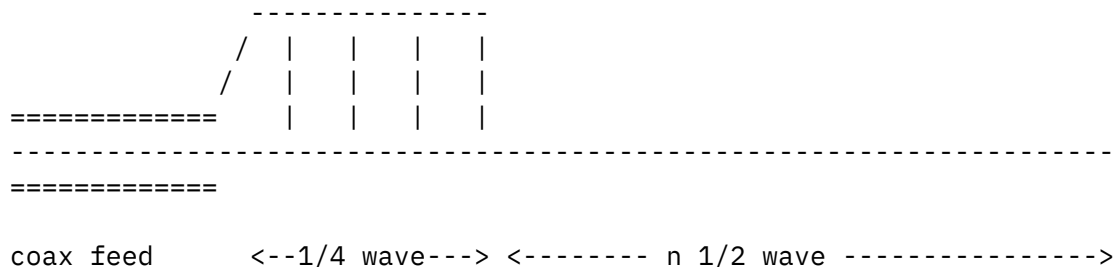
Date: Mon, 19 Jul 1993 17:28:04 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!spool.mu.edu!sdd.hp.com!col.hp.com!
news.dtc.hp.com!hpsc.it.sc.hp.com!icon.rose.hp.com!greg@network.ucsd.edu
Subject: IC-730 rf problem

To: info-hams@ucsd.edu

: >i am currently using an Icom 730 with a Pyramid Power Supply (12-15v @ 25A)
: >and feeding the rig with a random wire thrown out of my bedroom window.
: >The problem that I am having is that on 40m and 20m, i cannot get the rig
: >to put out 100w. The tuner has a built in SWR/Power meter and I can get
: >the SWR below 2:1, but I can't seem to get more than 50w output.
:
I didn't see the original posting, but this clip sounds so familiar, maybe
I can help...

I have a Yaesu FT-767GX which also has a built-in tuner, and I tried the
same technique to load up my old shortwave long-wire, with terrible results.
I could get the SWR down, and even a bit of power out, but any change in
frequency or the position of the wires would send the match into the toilet.

The solution was not in the antenna tuner, but rather the antenna itself.
I added a 1/4 wave matching section of open wire line between the feed line
(coax) and the antenna. This was made with a piece of wire and a pile of
popsicle sticks, cut in half. I was lucky (it just happened to work out), but
you will also need to have the antenna itself be a multiple of 1/2 wavelength
long (mine is 3/2's). What you will end up with is an extended, end-fed Zep.



Of course, you will need to pick a band to operate on, but I've found that
some of the bands are close enough harmonically to get a fair match.
In my case, my 10M antenna also works fairly well on 15 and the low end of 6.

Good luck,

Greg KD6KGW

Date: 19 Jul 1993 16:38:32 GMT
From: noc.near.net!news.bbn.com!bbn.com!levin@uunet.uu.net
Subject: impatient newbie ham
To: info-hams@ucsd.edu

bodoh@dgg.cr.usgs.gov (Tom Bodoh) writes:

|As another impatient newbie I can only pass on what I've heard. I have seen
|recent postings that varied from 4 to 8 weeks - with 7 weeks being
|what most people are seeing. I've only heard of two getting theirs in 4
|weeks - and I'm not sure how that would have happened.

I think at least some of these were for novice licenses - before July
1 applicants mailed their filled-out 610s directly to the FCC,
bypassing any processing time by VEs and VECs and the extra mailing
time as well.

(Novice applicants must now go to a VE session and their paperwork is
handled by a VEC. There is now no difference between how novices and
other license classes are treated, EXCEPT that at under the ARRL VEC,
applicants who only attempt elements 1a and 2 are not charged the
\$5.60 VE fee [or it will be refunded before they leave].)

|Assuming that you tested with a ARRL VE team, the VE and VEC are not the
|big holdup. Our VE's mail their paperwork to the ARRL the next day and
|they said that the ARRL processes them the day received and Fedex's them
|to the FCC.

I understand that the VEC can take up to a week under peak conditions
-- even they are occasionally swamped. I think I remember reading
that March and September/October are particularly busy times.

I don't think we will see the FCC getting as far behind as they did
last November and December, when I guess they got shorthanded for a while.

Check the mailbox each Friday, Saturday and Monday. Your license will
most likely be mailed on a Thursday.

/JBL

=

Nets: levin@bbn.com		"There were sweetheart roses on Yancey Wilmerding's
POTS: (617)873-3463		bureau that morning. Wide-eyed and distraught, she
KD10N (@KB4N.NH.USA)		stood with all her faculties rooted to the floor."
		-- S. J. Perelman

Date: 19 Jul 93 07:17:00 GMT
From: ogicse!emory!gatech!howland.reston.ans.net!math.ohio-state.edu!
cs.utexas.edu!not-for-mail@network.ucsd.edu
Subject: impatient newbie ham
To: info-hams@ucsd.edu

X-News: main01 rec.radio.amateur.misc:687

>From: pachner@csd4.csd.uwm.edu (Thomas Jay Pachner)
>Subject:impatient newbie ham
>Date: 18 Jul 1993 00:46:49 GMT
>Message-ID:<22a6hpINNqg8@uwm.edu>

>I am curious to know how long it has taken new licensees within the last year
>to receive their license. I am learning the definition of eternity.

>

>

>

>--

>=====

>Thomas Jay Pachner -- Music Major, Bassist, and Amateur Operator (soon)
>University of Wisconsin - Milwaukee - pachner@csd4.csd.uwm.edu
>Amateur Call Sign: Somewhere between Milwaukee and Gettysburg

Hi,

I passed my tech/HF on May 13 and received my ticket on July 12. During
eternity, I was studying for the General. On July 15, I passed
the General and Advanced exams!

Joe Landis - N3PQY/AA
(landisj@drager.com)

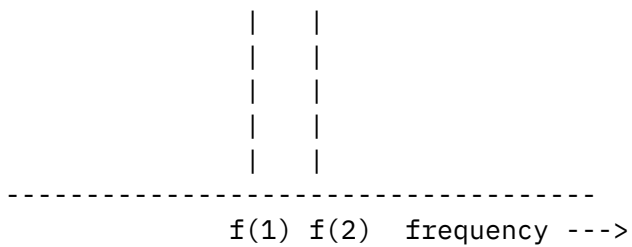
Date: 19 Jul 93 20:38:12 GMT
From: news-mail-gateway@ucsd.edu
Subject: Intermodulation
To: info-hams@ucsd.edu

Intermodulation is when you get two signals modulating each other --
the problem comes when a multiple of one modulates a multiple of the other.

Consider two frequencies, $f(1)$ and $f(2)$. If you want to make this a
little more concrete say $f(1)$ is 10.000Mhz and $f(2)$ is 10.010Mhz.

A specutrum analyser at the output of the ideal ampliflier would look
like this :

| |
| |
| |
| |
| |



For an amplifier with nonlinear behaviour harmonics of these two tones are generated and they are mixed by the nonlinearities in the amplifier. This produces spurious signals that are related to the input tones. These are the "intermodulation products". This is why a "two tone" test is used to measure the performance of amplifiers (and mixers) -- it is the simplest way to reproduce this behaviour.

$f(1) + f(2)$ we define not to be a problem as this is just linear mixer (or it may even be a desired mixer product!). Similarly with $f(1) - f(2)$.

Interesting things happen when you consider the higher intermod products.

Such as the 3rd order products, like:

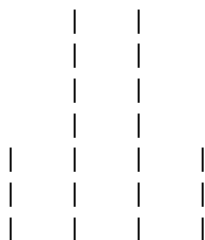
$2f(1) - f(2)$
 $2f(2) - f(1)$
 $2f(1) + f(2)$
 $2f(2) + f(1)$

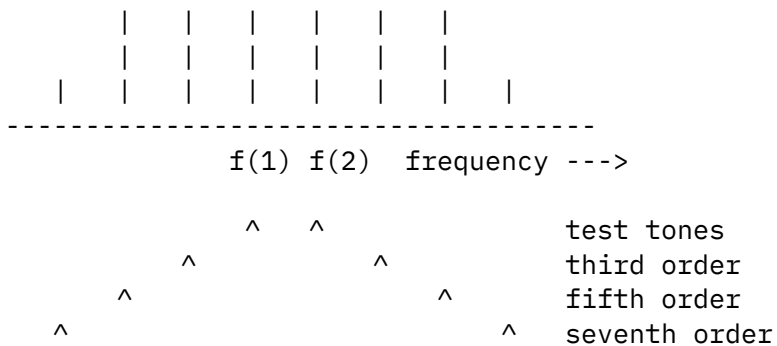
These are third order because they involve the mixing of three components: $f(2)$, $f(2)$ (to give $2f(2)$) and $f(1)$. These are often the most important products.

Fifth order products are the combinations of $3f(1)$

$3f(1) - 2f(2)$
 $3f(2) - 2f(1)$
 $3f(1) + 2f(2)$
 $3f(2) + 2f(1)$

On a frequency analyser these look like:





The intermodulation products are spaced out by the same amount as the frequency difference of the two test tones.

Read the bit in ARRL handbook and any introductory comms books should give you a little more background.

To calculate the amplitude of the IMD products you need to know the intercept point of the device (the input power at which the IMD signal is the same power output as the wanted signal), third order signals grow as the third power, fifth order as the fifth power (straight lines with slope 3 and 5 on a log power out vs log power in plot) and a little arithmetic. See my previous post (called TS-50).

Kevin Purcell N7WIM / G8UDP
a-kevinp@microsoft.com
Sit simplex, stultie!

Date: Mon, 19 Jul 1993 18:28:02 GMT
From: agate!linus!linus.mitre.org!mwvm.mitre.org!m14494@ames.arpa
Subject: Opinions of Heathkit gear
To: info-hams@ucsd.edu

Alan Bloom writes:
> I think you're still being a bit too hard on Heathkit...
> Take the SB-102, for example. It doesn't have
> [long list of things the SB-102 doesn't have]
> but neither did any other rig of its day.

Quite true, but the relevant comparison is what an SB-102 can do for the money, compared to other used rigs you can get *today*.

>It does have... good stability, and adequate sensitivity and selectivity...

Hmmm... yours must be a lot more stable than mine ever was.
For the rest, I think the operative word here is "adequate".
I quite agree: you can have a lot of fun for not much money
with old Heathkits. I was just pointing out that one shouldn't
pay too much for them, as rigs with considerably better
performance and more features sell for not much more.

Mike, N4PDY

* These are my opinions only *

Date: 19 Jul 93 18:48:36 GMT
From: ogicse!uwm.edu!cs.utexas.edu!swrinde!elroy.jpl.nasa.gov!nntp-
server.caltech.edu!slr@network.ucsd.edu
Subject: Professional quality earphones - source?
To: info-hams@ucsd.edu

In article <CAEy70.KLL@ms.uky.edu> hgpeach@ms.uky.edu (Harold Peach) writes:
>I am looking for a source of professional quality earphones (i.e.,
>skin colored, coiled wire, SMALL, etc. The only thing RS seems to
>carry are these black jobs. They work fine, but are not very
>inconspicuous.
>

Working in the broadcast field, I am aware of several outlets for
audio equipment. The company that comes to mind immediately is
Audio Services Corp. in North Hollywood, Calif. Phone: (818) 980-9891.

Most of their business is mail order and they have a nifty catalog they'll
send out just for the asking. What you probably want is called a
"Talent IFB earpiece". This is the same unobtrusive earphone that
newscasters wear while on the air. It's just about invisible from the
front and barely noticeable from the side. Be warned - they're not cheap !

--

Steve L. Rhoades	Voice: (818) 794-6004
Post Office Box 1000	
Mt. Wilson, Calif 91023	Internet: slr@cco.caltech.edu

Date: 19 Jul 93 11:01:14 CDT
From: timbuk.cray.com!walter.cray.com!cbetz@uunet.uu.net
Subject: skeds for Persieds meteor shower

To: info-hams@ucsd.edu

I may be jumping the gun just a bit, but I'm looking for anyone interested in running 144 or 222 Mhz schedules during the Perseids meteor shower next month (August 10-12).

I'm mostly concentrating on 2m, but plan to run a few 222 skeds. I'm especially looking for 2m skeds to NH, VT, RI, WV, NC, ID, WY and NM.

I'm located in grid square EN44 in Wisconsin.

If anyone is interested in a sked, please email me. Thanks.

Charlie Betz N0AKC
cbetz@romulus.cray.com

Date: Mon, 19 Jul 1993 11:56:50 GMT
From: pipex!uknet!root44!praxis!mikec@uunet.uu.net
Subject: Standard C468 - Tricks ?
To: info-hams@ucsd.edu

Hi Folks,

Does anyone have any keyboard tricks or mods for the Standard C468 432MHz txcvr ?

Thanks,

Mike (G6DHU)

Date: Mon, 19 Jul 1993 19:00:00 GMT
From: pipex!warwick!bsmail!siva.bris.ac.uk!ard@uunet.uu.net
Subject: Teletype question
To: info-hams@ucsd.edu

This article was probably generated by a buggy news reader.

Date: 19 Jul 93 19:19:03 GMT
From: news-mail-gateway@ucsd.edu
Subject: TNC<->Alinco DJ-580 connection
To: info-hams@ucsd.edu

Okay...Info-Hams folks.

I am having trouble interfacing my Alinco DJ-580 HT to my MFJ-1278B TNC. Has anyone successfully done this and what is the secret words and/or gestures needed to make it work? The MFJ documentation does not give any information about using any type of Alinco equipment so I have been experimenting with various combinations of values of resistors and capacitors without any success.

I can receive packets fine, I just can't get the radio to key up!!??

Any help would be greatly appreciated?

All wise cracks about going out and buying a new radio will be ignored!! :-)

thanks and 73s - Warren (KD4YRN)

--

Warren E. Lewis
Graphics Division
SAS Institute Inc.
Cary, NC

saswel@unx.sas.com
(919) 677-8001 x6542
PP-ASEL
KD4YRN DOD#0021

Date: 19 Jul 1993 16:28:30 GMT
From: swrinde!gatech!howland.reston.ans.net!darwin.sura.net!haven.umd.edu!cville-
srv.wam.umd.edu!ham@network.ucsd.edu
Subject: TS-50, type-acceptance
To: info-hams@ucsd.edu

I think that the point here is that maybe Kenwood forgot (?) to install a diode in the radio that prevents it from transmitting out of the ham bands "OUT OF THE BOX."

Doing an out-of-band "modification" is just fine, to the best of my knowledge. My Icom 735, bought used at a hamfest, transmits everywhere. There are mods for nearly every general-coverage radio in existence to allow out-of-band transmit. All I can think is that Kenwood failed to include a clippable diode in the radio to prevent out of band xmit.

At any rate, the stores shouldn't be responsible for this. When you buy stuff from a company, maybe you test one, but if the specs say it won't transmit out of band (without aftermarket modification), you kind of assume that ALL of the equipment complies to the standard. That's the idea of mass-production.

Can you imagine if Circuit City had to test EVERY VCR, TV, Stereo, Microwave, and telephone it sold to make sure they met the FCC's type B acceptance?

It's the job of the manufacturer. When the manufacturer stamps that Quality Control "OK" on it, you assume it's OK.

Scott NF3I

--

73,

----- The
 \ / Long Original
Scott Rosenfeld Amateur Radio NF3I Burtonsville, MD | Live \$5.00

WAC CW/SSB WAS 95% of the way to DXCC -----| Dipoles! Antenna!

Date: 19 Jul 1993 16:16:41 GMT
From: topaz.bds.com!topaz.bds.com!ron@uunet.uu.net
Subject: TS50 Illegal!
To: info-hams@ucsd.edu

If it is illegal to sell these radios, then is it illegal to use them?
Is it legal to use a radio which is type accepted for a part of the spectrum it covers, but not the entire spectrum it covers?

It is legal to possess them. To use a radio in the ham bands does not require type acceptance, so if you want to use it there, that's fine. What you do not want to do, is to use an amateur radio outside the ham bands (except in rare circumstances like CAP and MARS) in frequencies reserved for other services, even IF you have a license to operate in that band. For example, even though my 2M rig will (with a diode change) transmit just fine in the 154 MHz business band and I have authorization to operate there (use an old clunky GE radio), it is not legal to use my non-type accepted ham rig there.

-Ron

Date: 8 Jul 93 19:38:13 GMT
From: ogicse!emory!swrinde!menudo.uh.edu!uuneo!sugar!jreese@network.ucsd.edu
To: info-hams@ucsd.edu

References <20sjct\$5ot@dr-pepper.East.Sun.COM>,
<49o56B3w165w@jackatak.raider.net>,
<POPOVICH.93Jul7143117@cyclades.ma30.bull.com>2

Subject : Re: Repeater coordination, complaints?

In article <POPOVICH.93Jul7143117@cyclades.ma30.bull.com>

popovich@cyclades.ma30.bull.com (Steve Popovich) writes:

>Well, perhaps. As a starving grad student, I'm still using my old
>Ten-Tec 2591 HT on 2 meters. I bought it in 1983, and it still works
>fine...except that usable repeaters are starting to get few and far
>between, what with everybody in sight going to PL. You see, it has no
>PL encode or decode, and no room inside to put that "\$30 PL board".

Have you investigated the Communications Specialists SS-32HB? I put one of those *between* the two boards inside an IC2AT. It'll fit in ANYTHING!

They're cheap and reliable. I think the last one I bought was \$19.95. They also have a encode/decode board that isn't much bigger. They're programmable with soldering across pads on the board, but I usually find somewhere on the HT to put a 5 position DIP switch for the PL selection.

It might help you get PL without breaking the bank!

--

Jim Reese, WD5IYT | "Bad times bring out the best in Texans, good times
jreese@sugar.neosoft.com | bring out the worst." --Molly Ivins

End of Info-Hams Digest V93 #875
